

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029456**Date Inspected:** 17-Apr-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bernie Docena**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**In Process Visual Inspection-**

ESW N041, Location N- Face A:

QA observed, at random intervals, ABF/JV welder Chris Bruce (WID 8981) performing Shielded Metal Arc Welding (SMAW) with 4.0mm diameter E7018-MH4-R electrode and in accordance with ABF Welding Procedure Specification (WPS) ABF-WPS-D1.5-1000R-03. Welding was performed on tower Electroslag Weld "ESW" designated as N.

Face A

Original Y= 5150mm

During welding, ABF Quality Control Inspector (QC) Bernie Docena was observed monitoring the welding parameters.

**Pre-repair Verification-**

ESW S045-G, ESW W043-V

QA observed at random intervals ABBF QC Inspector Bernie Docena performing Ultrasonic Testing (UT) verification of ESW weld repair locations prior to the start of performing air carbon arc gouging for defect removal. Locations of repairs were noted as:

ESW S045 "G"

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Y= 3900mm, + 300 above/below repair (3400~4210)

D= 40mm

ESW W043 "V"

Y= 3950mm, + 300 above/below repair (3650~4260)

D= 40mm

QA also performed a UT verification of HAZ areas located 300 mm above and below of repair areas to be reinspected after welding. See TL-6027 for additional information on items inspected on this date.

Ultrasonic Testing of Tower Electroslag Welds (ESW)-

ESW S043, Location T- Face A, B:

QA performed Ultrasonic Testing (UT) on approximately 1220mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW T" face A, B. Location (Y=7900~9120) of this weld was inspected using this testing method.

QA observed five (5) recordable longitudinal indications at the time of testing.

QA observed eleven (11) recordable transverse indications at the time of testing.

QA performed UT of weld designated as "ESW T" in accordance with the approved supplemental procedure for confirmation and evaluation of planar type defects. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Please see TL-6027 for complete listing of QA recorded indications.

Ultrasonic Testing of Tower Electroslag Welds (ESW)-

ESW S041, Location S- Face A, B:

QA performed Ultrasonic Testing (UT) on approximately 790mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW S" face A, B. Location (Y=8180~8970) of this weld was inspected using this testing method.

QA observed one (1) recordable longitudinal indication at the time of testing.

QA observed three (3) recordable transverse indications at the time of testing.

QA performed UT of weld designated as "ESW S" in accordance with the approved supplemental procedure for confirmation and evaluation of planar type defects. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Please see TL-6027 for complete listing of QA recorded indications.

### Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to testing and work performed during this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Adame,Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer
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